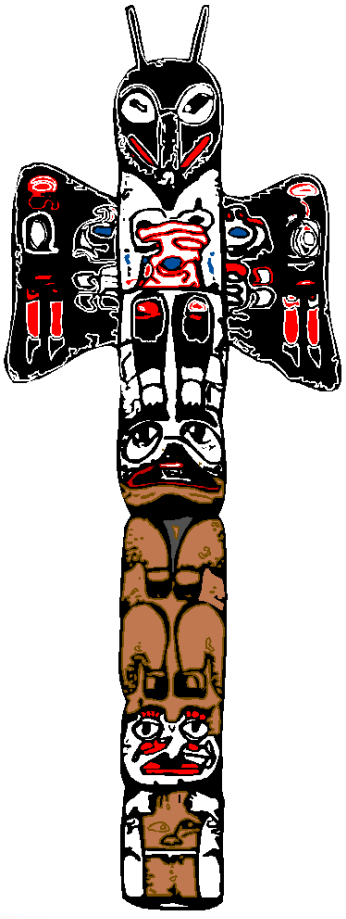
MARINE OPERATIONS CENTER – PACIFIC

OCCUPANT EMERGENCY PLAN

AND

EMERGENCY/CONTINGENCY HAZARDOUS SPILL PLAN



November 26, 2001

NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION

MARINE OPERATIONS CENTER – PACIFIC

OCCUPANT EMERGENCY PLAN

Table of Contents

Introduction

This is an Employee Occupant Emergency and Fire Prevention Plan for the National Oceanic Atmospheric and Administration's (NOAA) Marine Operations Center – Pacific (MOP). The Plan informs employees of actions to be taken in the event of an emergency. This Plan satisfies the requirements of the Occupational Safety and Health Act OSHA 29 CFR 1910.38.

Facility and Personnel Identification

Name of Facility/Location

National Oceanic and Atmospheric Administration
Office of Marine and Aviation Operations
Marine Operations Center - Pacific
1801 Fairview Avenue East
Seattle, Washington 98102-3767

Command

Rear Admiral Nicholas Prahl, Director MOC
Phone: (757) 441-6168 Cellular: (757) 630-7188

Captain John C. Clary, Deputy Director MOP
Phone: (206) 553-7911 Cellular: (206) 669-2105

Commander Timothy B. Wright, Chief Operations Division MOP
Phone: (206) 553-4548 Cellular: (206) 390 - 7527
Pager: (206) 98 - 1096

Emergency Coordinator/Alternate

Coordinator
Mr. Bill Brandenburg, Facility Manager
Phone: (206) 553-4597 Pager: (206) 625-8224
Cellular: (206) 910-5427

Alternate Coordinator
Mr. James R. Schell, Environmental Compliance Specialist
Phone: (206) 553-0121 Pager: (206) 991-4862
Cellular: (206) 910-2170

Emergency Evacuation (Key Personnel)

Chief, Operations Division	Phone: (206) 553-4548
Medical Director	Phone: (206) 553-8704
Chief, Marine Engineering	Phone: (206) 553-4484
Supervisor, Facilities Mgmt.	Phone: (206) 553-4597
Chief, Electronic Engineering	Phone: (206) 553-0192

Medical Personnel

CDR Thomas J. Edwards, USPHS
Phone: (206) 553-8704

Emergency/Fire Action by First Responder

During Working Hours

Immediate Action (by any MOP employee):

Sound the alarm for 10 seconds. All buildings are equipped with emergency air horns. Break open the yellow alarm box and use the air horn.

The administration building has a ship's bell in the lobby that is used for emergencies and along with the air horns. The bell must be rung for at least 10 seconds.

When the fire alarm sounds in the electronics/warehouse building immediately evacuate the building. The alarm will sound inside the main hallway and an exterior bell will ring.

The electronics/warehouse building is equipment with smoke/heat detectors throughout the building. The building also has alarm boxes that activate the system.

Shout "FIRE."

Call the Seattle Fire Department **#9-911** and give them the address of the base: 1801 Fairview Ave E.

Notify the Director, MOP Tel**- 7656**.
or Deputy Director, MOP **- 7656**.
or Chief, Operations Division, MOP **- 8705**.

Subsequent Action by the Director MOC or Acting Director:

Implement Evacuation Plan (contact Key Personnel).

Notify Facility Management Group **-4597**.

Notify Base Security **-5349**.

Notify ships berthed at MOP.

During Non Working Hours

Immediate Action (by Base Security or any MOP employee):

Sound Fire Alarm for at least 10 seconds. All buildings are equipped with emergency air horns. The administration building has a ship's bell located in the main lobby that must be rung for 10 seconds.

If the fire alarm sounds from the electronics/warehouse building, immediately evacuate the building.

Call Seattle Fire Department **#9 - 911** give them the address of the base:
1801 Fairview Ave E.

Notify Base Security **– 5349**.

Subsequent Actions (by Base Security):

Implement Evacuation Plan.

Open base to Seattle Fire Department.

Notify vessels berthed at MOP.

Notify Facilities Manager	Pager: (**206) 625 - 8224** Cell**: (206) 910 - 5427**
Chief, Operations Division, MOP	Cell: **(206) 390 – 7527**
Deputy Director, MOP	Cell: **(206) 669-2105**

If additional emergency phone numbers are needed use Marine Operations Center Emergency Phone Call List.

Emergency Evacuation During Working Hours

Decision to Evacuate

In the event of a fire or natural disaster, either the Deputy Director or the Acting Deputy Director will make the decision to evacuate. The Deputy Director will direct key personnel and alert both base security and ships berthed at the Marine Operations Center.

Evacuation Routes

Evacuation route maps are posted in each work area, hallways, and lobbies. The following information is marked on evacuation maps:

- Emergency Exits
- Evacuations Routes
- Locations of fire extinguishers
- Fire alarm locations
- Emergency eye wash stations

Subsequent Action: (by key personnel)

Designated key personnel are responsible for their respective areas. They are to ensure all personnel evacuate via the nearest exit. They are to assist handicapped personnel or visitors during the evacuation. If possible, key personnel are to assign other individuals to secure equipment, doors, and windows. Personnel must assemble outside and in front of the base for muster and further instructions. Key personnel are responsible for their division's accountability.

Personnel will gather at the east parking lot along the walk path next to Fairview Ave E.

Facility management personnel will unlock the center driveway gate for fire department access and direct the fire department to the location of the fire.

If there is a fire onboard, a vessel berthed at MOP the center gates will be unlocked and opened by facilities or security guard. Facilities or the security guard will direct the fire department vehicles to the vessel needing assistance.

Key Personnel	**Area of Responsibility**
Chief, Operations Division	2nd Floor Administration Bldg.
Chief, Medical	1st Floor Admin. Bldg. N of lobby
Chief, Marine Engineering	1st Floor Admin. Bldg. S of lobby
Facility Manager	All Shops
Chief, Electronic Engineering	Electronics and Warehouse building

Visitors

All Visitors to MOP are the responsibility of the person receiving them. All visitors will immediately evacuate during any emergency or possible emergency.

Physically Challenged Personnel

Physical challenge employees must review evacuation strategy with their Division Chief. In the event of an emergency assigned personnel are responsible for evacuating physically challenged employees immediately.

Return to Work

Employees may return to the base only upon the order of the Deputy Director.

Emergency Evacuation During Non-Working Hours

Immediate Action

In the event of a fire or natural disaster during non-working hours, base security at MOP will be responsible to evacuate the premises.

Subsequent Action

All base personnel must assemble outside and in front of the base for personnel muster and further instructions. The sign-in sheet at the guard shack will be used to account for all weekend base personnel.

Emergency Actions

Emergency Response Personnel

Facilities personnel, using the buddy system, will attempt to contain the fire. The facility manager will decide to move personnel out of danger to protect employees. The Seattle Fire Department is responsible for extinguishing the fire and assessing the hazards.

Facilities will fight the fire ONLY If:

- The fire department has been called.
- The fire is small and not spreading to other areas.
- Escaping the area is possible by backing up to the nearest exit.

First Aid

If any first aid or medical attention is required, the MOP Health Service Officer will be notified. If there is, a life threatening or serious injury dial **#9-911** immediately.

Reporting of Significant Accidents

The MOC Medical Officer or Safety and Environmental Compliance Officer will report all significant accidents promptly to NOAA's Regional Safety and Health Manager at:

U.S. Department of Commerce ,Western Regional Support Center
7600 Sandpoint Way NE ,Seattle, WA. 98115-0070
Phone: (206) 526-6049, Fax: (206) 526-6675

Other Buildings in the Vicinity of MOP

Occupants of buildings near MOP will be notified by the Emergency Coordinator upon direction of the Deputy Director, in the event of an emergency.

Medical Emergency

Call Medical Emergency Number: **911**

- Paramedics
- Ambulance
- Fire Department
- Other

Provide the following information:

- Nature of medical emergency,
- Location of the emergency (address, building, room number), and
- Your name and phone number from which you are calling.
- Do not move victim unless absolutely necessary.

Call the following personnel trained in CPR and First Aid to provide the required assistance before the arrival of the professional medical help:

MOP Health Service Office	Phone: 8704
Facilities Personnel:	4597
SECO	0121

If personnel trained in First Aid are not available, as a minimum, attempt to provide the following assistance:

- Stop the bleeding with firm pressure on the wounds (note: avoid contact with blood or other bodily fluids).
- Clear the air passages using the Heimlich Maneuver in case of choking.

In case of rendering assistance to personnel exposed to hazardous materials, consult the Material Safety Data Sheet (MSDS) and wear the appropriate personal protective equipment. Attempt first aid ONLY if trained and qualified.

Location of Fire/Emergency Equipment

Fire Extinguishers

All buildings are equipped with A, B, C fire Extinguishers (see map).

Halon Extinguishers

Located in the hazardous waste storage sheds, the flammable storage locker and the navigation and communication shop. Halon extinguishers must be used with caution in a well-ventilated area (see map).

Firehose and Nozzles

Firehose boxes are painted red and marked "FIREHOSE". Each station is strategically located on the piers and at the base. Each firehose box contains two 50-foot lengths of 1-1/2 inch firehose, one high-pressure nozzle and a spanner wrench (see map).

Fire Hydrants

Twenty-eight 1-1/2 inch fresh water fire hose connections are located at strategic locations around the pier and base. Three 6-inch fire hydrants are located adjacent to MOP Buildings (see map).

Smoke and Heat Sensor Alarms

The Electronics Engineering/Warehouse has a fire detection system that will sound an horn inside the buildings and a bell on the exterior of the building.

Smoke Alarms

The administration building is equipped with battery-operated smoke detectors throughout the building. If alarm sounds evacuate the building

Emergency Air Horns

The administration and electronics engineering buildings are equipped with air horns to sound off in an emergency (see map). The boxes are yellow and labeled fire/evacuation alarm.

Electronic Shut-Off

The electronic engineering building is equipped with five emergency electronic shut-off switches (see map).

First Aid

The administration and electronics engineering buildings are equipped with first aid kits. The doctor's office is located in the administration building (see map).

Eye Wash Stations

The maintenance and electronics engineering buildings are equipped with emergency eye wash stations (see map).

Fire Prevention

Housekeeping Procedures

All flammable materials **MUST** be stored in properly labeled storage cabinets that meet the specifications of the OSHA and NFPA Flammable Storage Requirements and Washington Administrative Code (WAC) and the Region 10 Fire Chief. No flammable equipment is to be stored next to the flammable storage area. In order to transport flammable or hazardous material, the packer and transporter must be certified by the Department of Transportation. Flammable and hazardous materials/waste must be placed in proper metal containers, correctly labeled, and hazardous waste containers. Solvents and thinners are to be recycled. Refer to MOP Pollution Prevention Executive Summary for further information on waste elimination plans.

Control Ignition Source

Smoking is **PROHIBITED** inside all MOP buildings and on the pier. Smoking is prohibited in all storage areas and within 50 feet of any flammable liquids. Heat producing equipment such as burners, heat exchangers and boilers must be properly maintained and kept clean of flammable residues. Flammable equipment is not to be stored next to these pieces of equipment. Welding is to be done in a well ventilated area free of all flammable debris or equipment. Proper fire extinguishers must be nearby and easily accessible.

Training

All employees must be trained on this Emergency and Fire Plan. The plan must be available for employees review. Attached is a copy of a sign-in sheet (page 21). All MOP employees must read this plan and initial the sheet to indicate having done so. The plan will be reviewed and updated annually basis.

Emergency/Fire Drills

Annual fire/hazmat drills will be conducted at MOP. All base personnel will walk through the drill. The drill is to lessen the risk of personal injury.

CHEMICAL SPILL

When a chemical, hazardous substance or hazardous waste spill has occurred, Marine Operations Center - Pacific Emergency/Contingency Hazardous Spill Plan will be activated. This section will provide general guidelines that employees can use.

When a large spill has occurred:

- Immediately notify Facilities and SECO
    - Provide location of spill
    - Chemical name
    - Amount of spill
- Contain the spill with available equipment (e.g. pads, booms, absorbent materials etc.)
- Secure the area and alert other personnel in the area.
- Do not attempt to clean the spill unless trained to do so.
- Attend to injured personnel and call MOP Medical Staff or 911, if required
- Evacuate building as necessary

When a small chemical spill had occurred

- Contact Facilities or SECO
- If toxic fumes are present, secure the area to prevent other personnel from entering.
- Deal with the spill in accordance with the instructions described in the MSDS
- Small spills must be handled in a safe matter, while wearing the proper PPE
- Review the general cleanup procedures.

BOMB THREATS AT MOP

During Working Hours

Immediate Action (by any MOP employee)

Receiving a telephone bomb threat

- Try to find out exactly where the bomb has been or is going to be planted.

- Listen to any clues that may indicate who is calling and the location of the caller (see Bomb Threat Check List on page 19)

- Carefully record the information and report it to the Deputy Director (**553-7911 or 7656**).

NOTE: The Deputy Director is the Bomb Threat Officer during working hours.

Repeat words back to the caller to verify accuracy.

Try to establish time of explosion, location and kind of bomb, physical appearance of the bomb.

- Ask why the bomb was installed.

- State, "innocent people may be injured or killed."

- Note voice characteristics of caller (e.g., sex, age, accent, impediment).

Receiving bomb threat package, letter or card

- Do not move, open or disturb.

Characters of threat package or letter (e.g., foreign, special delivery, "confidential", "personal", excessive postage).

Reporting bomb threats

Subsequent Action (by Director, MOP, or designee)

-Implement the building evacuation plan. Do not use elevator.

-Alert Base Security and ships berthed at MOC.

-Notify Seattle Police Bomb Squad **#9-911** and FBI (Tel**#9-622-0460**).

-Designate personnel to assist the bomb squad.

Subsequent Action (by Facilities Management Personnel)

During working hours, the two gates at MOP and the front entrance to the administration building will be closed immediately by Facilities personnel and staffed by them to prevent access to the base, but not exiting from the base.

BOMB THREAT DURING NON-WORKING HOURS

Immediate Action (by any MOP employee)

-Try to find out exactly where the bomb has been or is going to be planted. Listen to any clues that may indicate who is calling and the location of the caller (see Bomb Threat Check List on page 19)

-Carefully record the information notify Base Security **5349** and report it to the Deputy Director **7911 or cell phone (206) 669-2105**.

-Repeat words back to the caller to verify accuracy.

-Try to establish time of explosion, location and kind of bomb, physical appearance of the bomb.

-Ask why the bomb was installed.

- State, "innocent people may be injured or killed."

-Note voice characteristics of caller (e.g., sex, age, accent, impediment).

Subsequent Action (by Base Security)

-The Base Security (**553-5349**) will limit access to the base to those with emergency duties.

-Contact MOP Deputy Director cell phone **(206) 669-2105** and Facilities Manager cell Phone **(206) 910 - 5427**

-Implement evacuation from MOP buildings

- Alert ships berthed at MOP.

-Notify Seattle Police Bomb Squad **#9-911** and FBI (Tel**#9-622-0460**).

-Designate personnel to assist the bomb squad.

BOMB THREAT CHECK-OFF LIST

Instructions: BE CALM, BE COURTEOUS, LISTEN, DO NOT ATERRUPT THE CALLER.

Date _____ Time of Call: _____

Time Caller Hung Up _____ Call Received by _____

CALLER'S IDENTITY Voice on the Phone
Man _____ Woman _____ Child _____ APPROXIMATE Age _____

ORIGIN of CALL: Local_____ Not Local _____Telephone Booth _____

Voice Characteristics: Loud _____ Soft _____ High Pitch _____ Deep _____
Race _____Raspy _____Pleasant _____Intoxicated _____

SPEECH: Fast_____Slow _____Distinct _____Distorted _____Stutter _____
Nasal _____Slurred _____Speech Impediment _____

Accent: Foreign _____ Region _____ Local _____ Not Local ____ Race_____

Language: Excellent _____ Good_____ Fair _____ Poor _____ Foul _____

Manner: Calm _____ Angry _____Rational _____Irrational _____Coherent _____
Incoherent _____Foul _____ Emotional _____ Righteous _____ Laughing _____

Background Noise: Airplanes ____Trains _____ Traffic _____Street _____
Office _____ Typing _____ Machines _____ Factory _____ Voices _____Quiet _____
Animals _____ Party _____Music _____Children _____

Keep Caller on Phone

Pretend difficulty hearing - keep the caller talking -if caller seems agreeable to further conversation, ask questions like:

WHEN is the bomb set for? _____**WHERE** is it?_____

WHAT kind of bomb is it? _____**WHY** are you doing this? _____

If the building is occupied, inform the caller detonation could cause injury or death

Exact Words of Person Placing Call:_____

_____

_____

Report Call At Once To:

Deputy Director during working hours **#3-7911** or Security Guard during non-working hours **553-5349**.

WORKPLACE VIOLENCE

Workplace violence is a growing concern in United States and will not be tolerated at MOP. Employees are responsible for maintaining a safe work environment. If a situation arises, follow the guidelines below before assistance arrives. Marine Operations Center Pacific Base Operations Manual section 309 provides policy. and guidance. Threats or assaults that require immediate attention by Seattle Police call **911** and call facilities at **4597**. If the security guard is on duty, call **5349** to request assistance.

Angry or Hostile citizen or NOAA employee

- Stay calm, listen attentively
- Maintain eye contact
- Be courteous and patient
- Keep the situation in your control if possible

Person threatening, shouting or swearing

- Signal a co-worker, or supervisor, if you need help. (Use a prearranged code word)
- Do not make any calls yourself
- Have someone (co-worker) notify base security at **5349** or facilities **4597** or Seattle Police **911**

Person threatening with a gun, knife, or other weapon

- Stay clam. Quietly signal a co-worker for help (Use a prearranged code word).
- Maintain eye contact.
- Stall for time
- Keep talking - but follow instructions from the person who has the weapon.
- Don't risk harm to yourself or others
- Never try to grab the weapon
- Watch for a safe chance to escape to a safe area.

EARTHQUAKES

DURING AN EARTHQUAKE

If indoors:

1. Stay indoors, preferably near the center of the building.
2. Take cover under sturdy furniture, or brace yourself in doorway.
3. Protect your head and neck.
4. Stay away from glass windows and glass doors.

If outside:

1. Lie flat on the ground.
2. Stay away from buildings, signs, trees and electrical wires.

If driving:

1. Stop quickly and stay in your vehicle.

AFTER EARTHQUAKES:

1. Attend to injured, or assist them in vacating the building, if safe to do so (remember, aftershocks are likely)
2. Exit buildings by stairs, never by elevators
3. Stay out of damaged buildings and away from downed power lines and overhead hazards
4. Tune radio to any AM radio station or KIR0 AM 710 for emergency broadcasts.

If it is safe to do so:

1. Secure utilities, if required
2. Check quickly for fire hazards, fires or hazardous material spills
3. Bring emergency supplies (i.e., first aid kit) from your office with you when you evacuate.
4. Ensure a primary and backup person is assigned to assist disabled persons.

5. Abate hazards or leave sign warning response crews of hazards

6. Put phones back on hooks

7. Convene at emergency evacuation site, locate Building Captains and report chemical hazards

8. Account for all personnel at evacuation site

9. Identify employees, floor by floor, building by building; note condition of each and develop list of missing, or suspected missing, employees and probable locations

10. Do NOT call 911 unless emergency medical or fire response is required

In the case of earthquakes, little or no warning will precede the event. Injury to MOP personnel, or damage to MOP property may be non-existent, or it may be extensive. The MOP Facilities Management Staff will verify the safety of MOP personnel and assess the condition of MOP property.

The specific actions of the MOP Facilities Management Staff will vary, depending upon the severity of the damage caused by the earthquake.

SEVERE WEATHER

MOC Adm11 provides policy and guidance for working hours during emergencies. MOP Hazardous Weather Plan is updated yearly, distributed to all employees, and posted on their respective bulletin boards. If severe weather is forecast the Deputy Director or Acting Deputy Director will make the decision to release personnel. Employees can call the Hazardous Weather line 206 248 – 7521 for recorded message which provides guidance on late openings, closures and dismissals.

The following guidelines are for employees to use during severe weather.

High Winds

- If high winds are forecast ensure area around buildings, including parking lot, are free of debris that could become a missile hazard in event of high velocity winds.
- Brace structures susceptible to high winds, if possible
- Stay in building (or car) and away from exterior glass windows.

Blizzards or Heavy Snow

- Stay calm and await instructions.
- If there is no heat:
    - Close off unneeded rooms or areas.
    - Stuff towels or rags in cracks under doors
    - Close blinds
- Eat and drink. Food provides the body with energy and heat. Fluids prevent dehydration
- Wear layers of loose-fitting, lightweight, warm clothing, if available.

If stranded in car or truck

- Stay in vehicle.
- Run the motor about ten minutes each hour. Open the windows a little for fresh air to avoid carbon monoxide poisoning. Make sure the exhaust pipe is not blocked.
- Exercise to keep blood circulating and to keep warm.
- Make yourself visible to rescuers.
    - Turn on dome light at night when running engine.
    - Tie a colored cloth to antenna or door.
    - Raise the hood after the snow stops falling.

Extended Power Loss

In the event of extended power loss to the facility, certain precautionary measures must be taken to prevent damage to equipment or buildings. The Deputy Director or Acting Deputy Director will make the decision to evacuate or release personnel from the marine center.

Personnel will secure all electrical equipment and appliances to protect the equipment or appliances from power surges that could cause damage to electronics and effecting sensitive equipment.

Freezing Temperatures
If temperatures are within the freezing range, facilities personnel will protect the facility to ensure water lines, toilets, etc are protected from freezing.

If long-term power loss is expected facilities will:

- Drain toilets
- Drain water lines to building or turn on water to keep a flow within the pipes.
- Add propylene-glycol to drains to prevent traps from freezing.
- Prevent heating system in Administration Building from freezing.
- Protect and if necessary drain the ship base boiler.
- Facilities will inspect equipment that contains fluids that may freeze.
- Employees will close all windows in their workspace and close binds.
- Inspect the facility to ensure all windows are closed and blinds are lowered and closed.

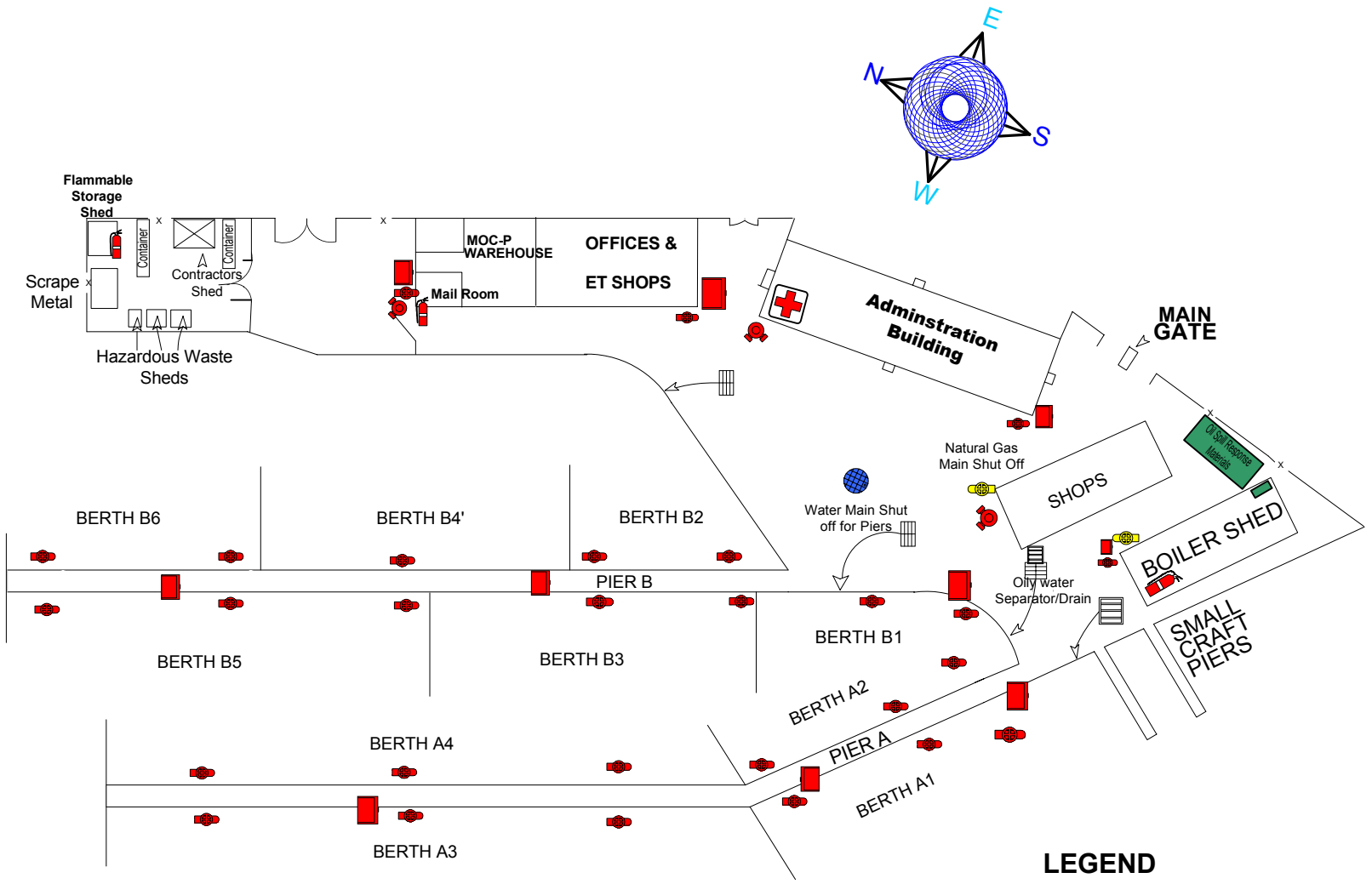
Restoration of Power

- Electronic equipment will be brought up to ambient temperatures before energizing to prevent electrical condensate from forming on circuitry.
- Restart heating system in Administration Building.
- Reenergize the water systems to all buildings.
- Check all potable water systems for leaks from freezing after the heat has been restored to the facility.
- Inspect and reenergize the ships base boiler.

Emergency and Fire Prevention Plan

I have read MOP Emergency and Fire Prevention Plan and understand the fire prevention measures to take in the event of a fire or an emergency at the Marine Center.

NAME	DATE	SIGNATURE

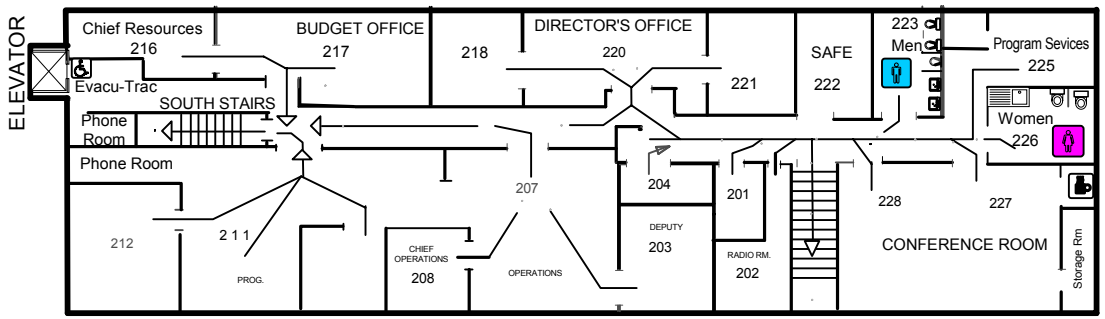


MARINE OPERATIONS CENTER - PACIFIC
SEATTLE, WASHINGTON

LEGEND

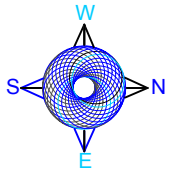
- 6" FIRE HYDRANTS
- 1 1/2" FIRE HOSE CONNECTIONS
- 1 1/2" FIRE HOSE BOXES, TWO 50' SECTIONS OF HOSE
- FLAMMABLE MATERIALS/HAZARDOUS WASTE STORAGE LOCKERS
- STORMS DRAINS
- Oil Spill Response Materials
- NATURAL GAS MAIN SHUT-OFF

SECOND FLOOR



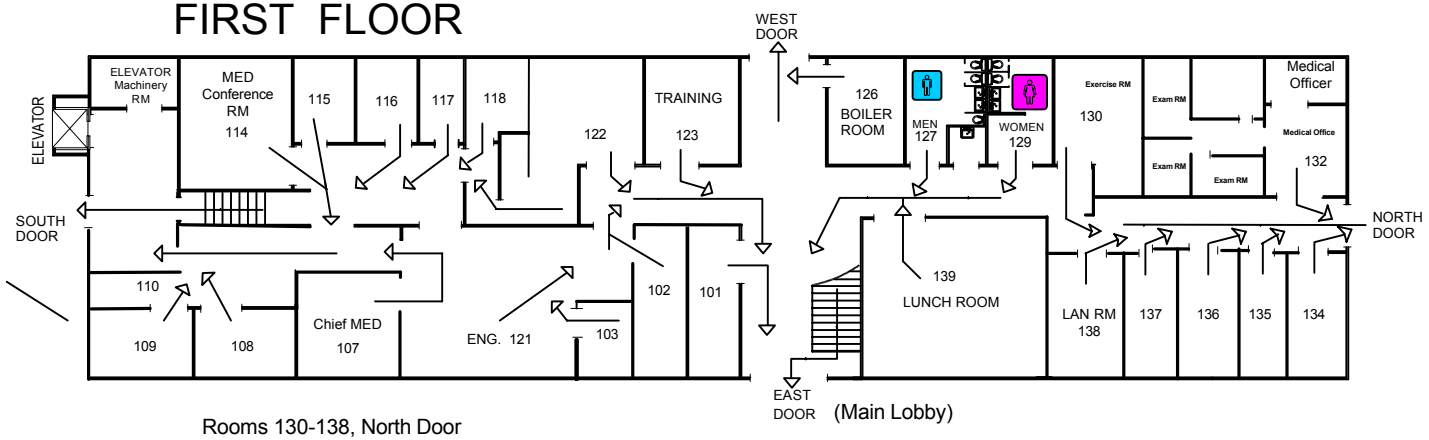
Rooms 203, 207-221, evacuate via South stairs, South door on first floor

Rooms 201, 202, 204, 222-228 evacuate via main stairs, out East Doors (Main Lobby)



Administration Building Evacuation Plan

FIRST FLOOR

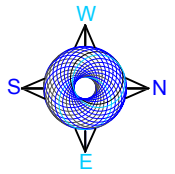


Rooms 130-138, North Door

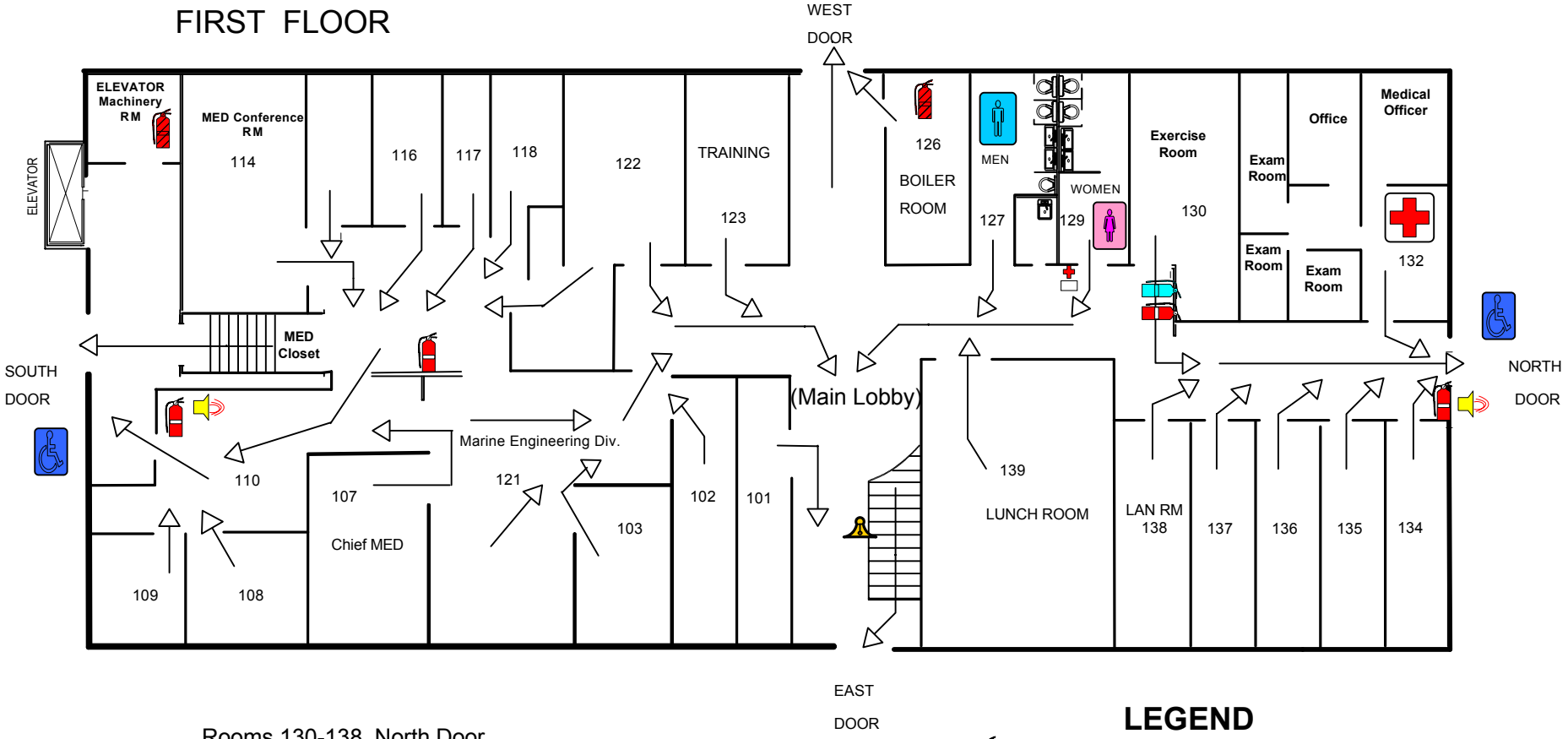
Rooms 126-129, 138, 101-102, 122-123, 107, 121 East Door

Rooms 107-110, 114, 116-118, evacuate via South Door

ADMINISTRATION BUILDING EVACUATION PLAN & EMERGENCY EQUIPMENT



FIRST FLOOR



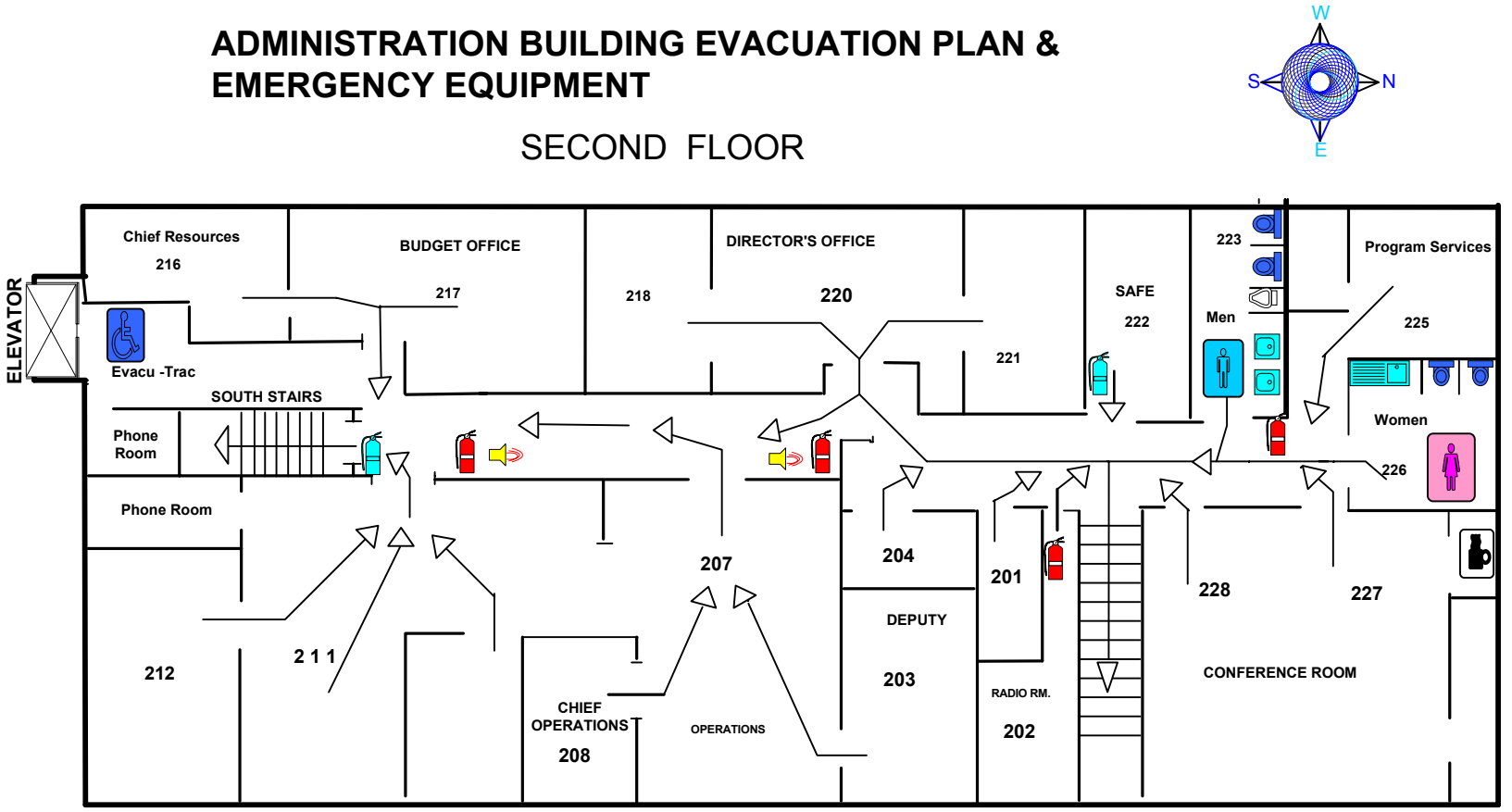
Rooms 130-138, North Door
Rooms 126-129, 139, 101-103, 122-123, 107, 121 East Door
Rooms 107-110, 114, 116-118, evacuate via South Door

LEGEND

- Fire Extinguisher ABC
- Fire Extinguisher BC
- Fire Extinguisher A
- Air Horn
- Ships Bell
- Access Accessible

ADMINISTRATION BUILDING EVACUATION PLAN & EMERGENCY EQUIPMENT

SECOND FLOOR



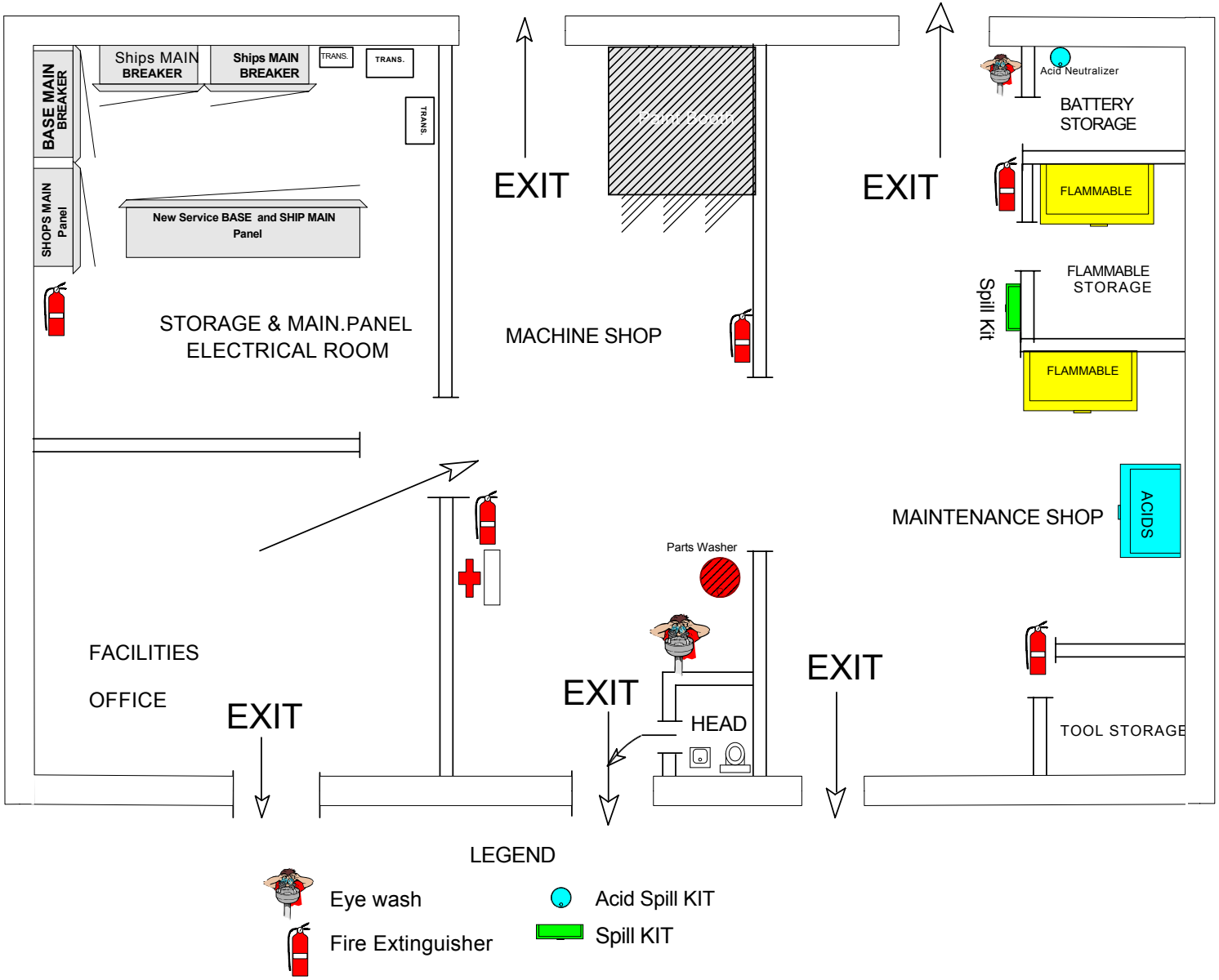
Rooms 203, 207-221, evacuate via South stairs, South door on first floor

Rooms 201, 202, 204, 222-228 evacuate via main stairs, out East Doors (Main Lobby)

LEGEND

- Fire Extinguisher ABC
- Fire Extinguisher A
- Air horn
- Evacu -Trac

MAINTENANCE BUILDING EVACUATION PLAN & EMERGENCY EQUIPMENT

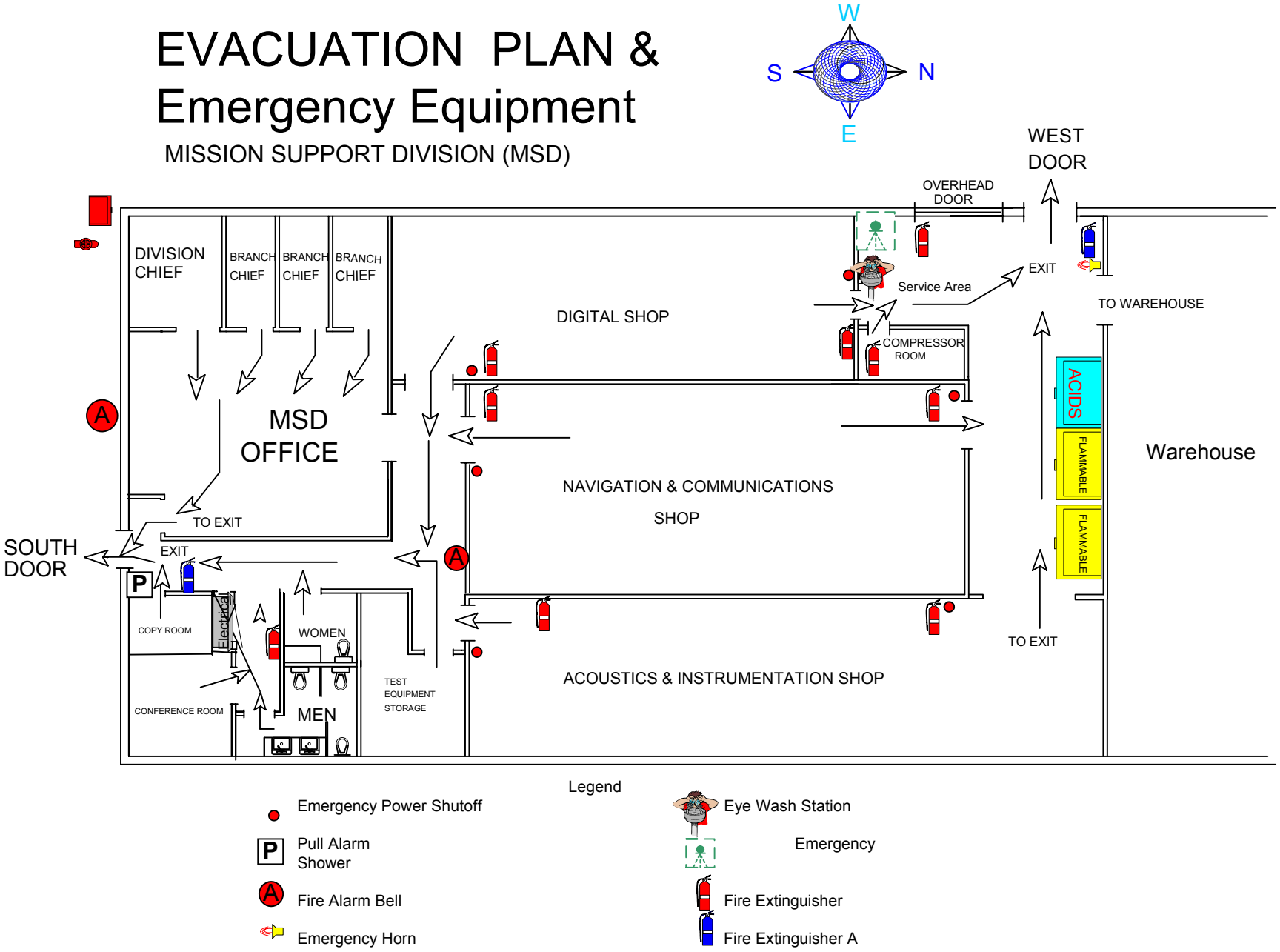


LEGEND

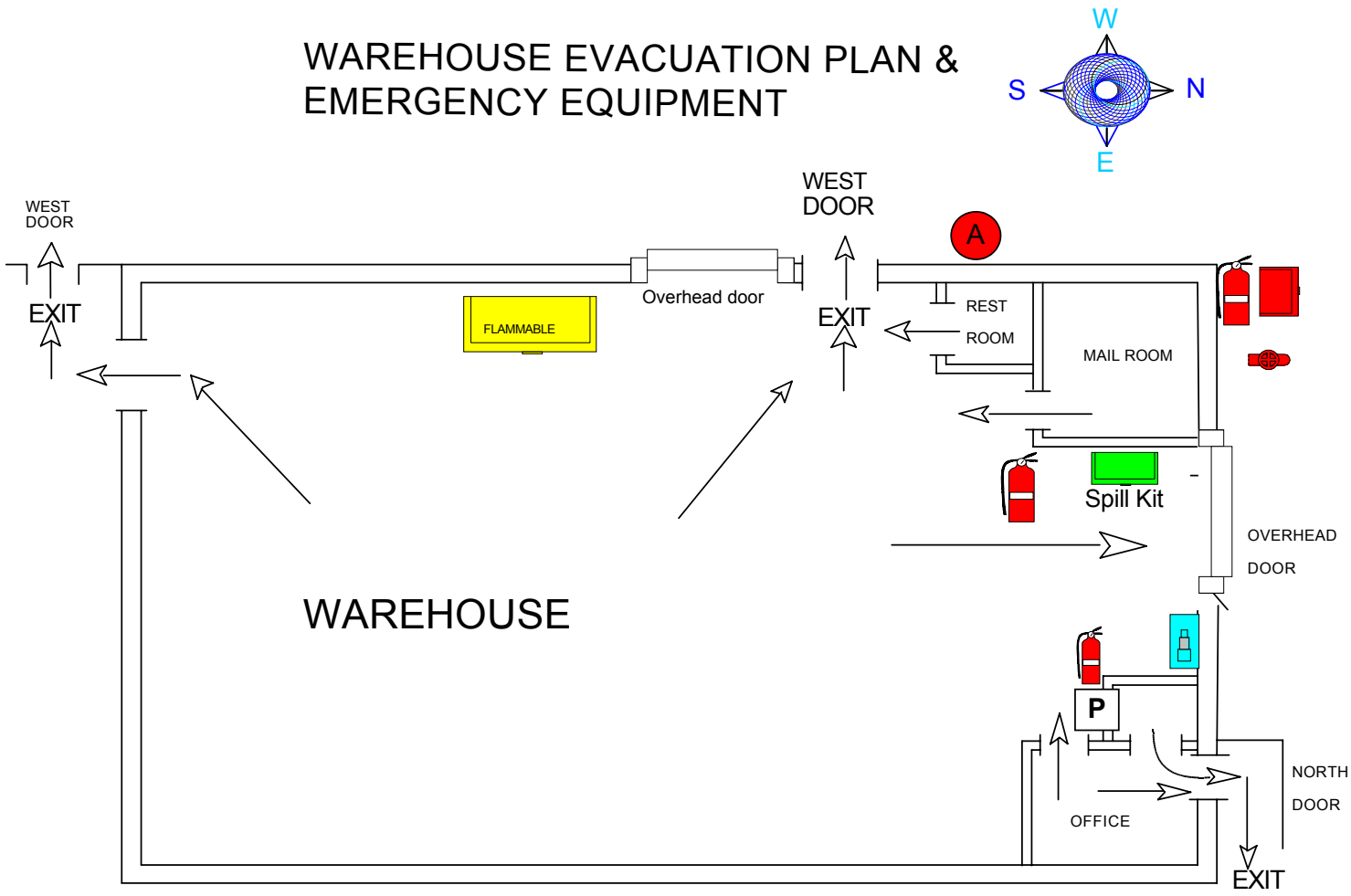
- Eye wash
- Fire Extinguisher
- Acid Spill KIT
- Spill KIT

EVACUATION PLAN & Emergency Equipment

MISSION SUPPORT DIVISION (MSD)



WAREHOUSE EVACUATION PLAN & EMERGENCY EQUIPMENT



LEGEND

- P — Pull Alarm
- Spill Kit
- Fire Extinguisher
- Forklift recharging station
- A — Fire Alarm Bell

Emergency/Contingency Hazardous Spill Plan

Marine Operations Center – Pacific

NOTE

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INDIVIDUALS WHOSE HOME TELEPHONE NUMBERS APPEAR IN THIS SUPPLEMENT HAVE GRANTED AUTHORIZATION FOR THE INCLUSION OF THE NUMBERS. THESE HOME TELEPHONE NUMBERS ARE PROTECTED BY THE PRIVACY ACT, AND ARE TO BE USED ONLY FOR OFFICIAL PURPOSES. ANY OTHER USE OF DISSEMINATION OF THE NUMBERS IS PROHIBITED WITHOUT THE CONSENT OF THE INDIVIDUALS. THE NUMBERS ARE NOT TO BE GIVEN TO ANY OTHER PERSON WITHOUT THE INDIVIDUALS' CONSENT, AND THEY MUST BE DELETED PRIOR TO PUBLIC RELEASE.

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INTRODUCTION

This is the Emergency/Contingency Plan (Plan) for the National Oceanic and Atmospheric Administration's (NOAA) Marine Operations Center-Pacific (MOP) which is located on southeast shore of Lake Union. The Plan designed to minimize hazards to human health and the environment in the event of an emergency circumstance such as fire, explosion, or unplanned sudden or non-sudden release of hazardous or potentially hazardous material constitutes to the air, soil, or water surface. It identifies personnel to be notified and procedures that will be taken in the event of any hazardous or potentially hazardous situation. The Plan satisfies the requirements as specified by the Resource Conservation and Recovery Act Chapter 173-303-350 and 173-303-360 Washington Administration Code (WAC).

Marine Operations Center-Pacific is located on property leased from The Haug Partnership, P.O. Box 24067, Seattle, Washington 98124. Normal base operations include storage of hazardous and non-hazardous materials for on site and shipboard use. The site has both Hazardous Material/Waste and Flammable Storage sheds. They are located at the north end of the base. The base contracts 24-hour security service with guards patrolling all areas of the base. All refueling and dry-dock maintenance are done off base. See Appendix A for Vicinity map, Legal Description and Site Diagrams.

This Plan will be reviewed and immediately amended if necessary, at three year intervals, or whenever significant changes occur which include, but not limited to, personnel, applicable regulations, facility, or equipment and 40 CFR Section 265.53 Paragraphs A-E and Chapter 173-303-350 WAC.

I. FACILITY AND PERSONNEL IDENTIFICATION

A. Name of Facility / Location

National Oceanic and Atmospheric Administration
Office of Marine and Aviation Operations
Marine Operations Center-Pacific
1801 Fairview Avenue East
Seattle, Washington 98102-3767

B. Command

Rear Admiral Nicholas Prahl, Director MOC

Office: Administration Building, 2nd floor
Marine Operation Center-Atlantic

Phone: 757-441-6168 Cellular: 757-630-7118

Work: 439 West York Street
Norfolk, VA 23570

Phone: 206-745-4438

Captain John C. Clary, Deputy Director MOP

Office: Administration Bldg., 2nd floor

Phone: 206-553-7911 Cellular: 206-669-2105

Home: 6303 141st Street SW
Edmonds, WA. 98026

Phone: 425-742-5873

C: Emergency Coordinator/Maintenance Official

Bill Brandenburg, Maintenance Mechanic Foreman

Office: Maintenance Building

Phone: 206-553-4597 Beeper: 206-625-8224

Cell Phone: 206-910-5427

Home: 8735 12th Avenue NW
Seattle, WA 98117

Phone: 206-782-7864

D: Alternate Emergency Coordinator

Jim Schell, Environmental Specialist

Office: Administration Bldg., 2nd floor

Phone: 206-553-0121 Beeper: 206-991-4862

Cell Phone: 206-910-2170

Home: 729 17th Ave.
Seattle WA, 98122

Phone: 206-324-0675

E. Medical Personnel

Commander Thomas J. Edwards, PHS

Office: Administration Building

Phone: 206-553-8704 Beeper:

Home:

Phone:

F. Regional Environmental Compliance Officer

Minh Trinh

Office: WASC FLD

Phone: 206-526-6647 Beeper:

Home:

Phone:

II. HAZARDOUS WASTE STORAGE FACILITY

A. Type of Facility

MOP has three hazardous material/waste shed with double bottom and bilge and one flammable material storage shed, all located at the north end of the base; 2 contain fixed halon fire fighting systems and two containing NAF S-III Agent. In addition, the Maintenance Building, Electronic Building and Warehouse each contain two Flammable / Hazardous Material Lockers with small quantities for on site use. Refer to Appendix A.

B. Description and Average Volume of Wastes Stored

Description	Volume	Quantity
OFF-Spec. Fuel (gasoline) (mix with oil)	20 gal.	2 ea.
Used Solvent:		
D-Limouene and Paint solids	20 gal.	1 ea.
Used C12-C13 Paraffinic Hydrocarbons	20 gal.	1 ea.
Used oil	55 gal.	4 ea.
Waste paint - oil base	10 gal.	1 ea.
Oil soaked rags/filters (Stored in Boiler Shed)	55 gal.	4 ea.
Bilge water w/ mixed hydrocarbons	55 gal.	1 ea.
Lithium, Ni-Cad,	15 lbs.	2 ea.
Lead-Acid batteries	20 lbs.	4 ea.
PCB Fluorescent Ballast	10 lb.	
Fluorescent light tubes, high intensity discharge (HID) lamps		2 Ctns.

Acids, Caustics, and Oxiders are store on occasionally from the vessels as hazardous material/waste for proper disposal on shore.

* All waste stored in DOT approved containers/drums, EPA labeled and properly segregated for compatibility.

III. RESPONSIBILITIES

A. Base Directorate

The Director, MOP, assumes total responsibility for all actions associated with this plan. The Director delegates his/her authority to implement this plan to the Emergency Coordinator. In the event of an actual spill, the Director and/or his/her designee will:

1. Remain in close contact with the Emergency Coordinator;

2. Provide necessary guidance and direction as deemed appropriate;

3. Decide, after thorough consultation with all parties, whether all personnel should evacuate facility;

4. Inform and keep up-dated the Director, Office of Marine and Aviations Operation (OMAO), and Director, Western Administrative Support Center (WASC);

5. Notify appropriate, local authorities should an evacuation of local advisable; and

6. Coordinate release of any information to the press and, if appropriate, coordinate through the local NOAA Office of Public Affairs

B. Emergency Coordinator

The duties of the Emergency Coordinator are to control and abate conditions requiring enactment of this Plan. The Coordinator has the authority to use whatever resources are reasonable in the performance of these duties. Duties and appropriate responses may include:

1. Implementation of this Plan;

2. Coordination of response with Director;

3. Coordination with Federal, State, and Local agencies to ensure implementation of this Plan;

4. Notification of appropriate authorities (i.e., Command, HAZMAT Team, etc.);

5. Notification of the National Response Center (1-800-424-8802--24 hour service) in the event of a release of a material posing a threat to human health outside the facility;

6. Evaluation of existing situation and potential problems;

7. Initiate clean-up procedures and coordination with Emergency Response Authorities;

8. Ensuring that facility personnel properly use clean-up equipment (i.e., fire extinguisher and spill control materials);

9. Overseeing of all cleanup operations;

10. Termination response actions when and if appropriate; and

11. Preparation of required reports.

C. Alternate Coordinator

The Alternate Coordinator shall assist the Emergency Coordinator in accomplishment of his/her duties and assume responsibilities in the event that Emergency Coordinator is absent.

D. Marine Operations Center-Pacific Personnel

Any MOP Employee who discovers an Emergency Situation (i.e. fire, hazardous material discharge, oil spill, etc.) on MOP property will call the Emergency Coordinator. If the situation warrants, the employee will contact the Base Command, Environmental Compliance Specialist and/or call the appropriate emergency response agency on #911.

When calling be prepared to give pertinent information, such as:

1. Name and telephone number of person reporting;
2. Location of incident;
3. Type of incident;
4. Name and quantity of hazardous materials involved; and
5. Extent of injuries, if any.

E. Marine Operations Center-Pacific Health Services Officer

The Pacific Fleet Health Services Officer will be notified in the event of any Emergency Situation that could result in injury or illness. The duties include:

1. Initiate medical assessment and triage pending arrival of Seattle Medic 1.
2. Liaison between Marine Operations Center-Pacific and area hospitals, including Harbor View Medical Center, and Medic 1.
3. Work with Emergency Coordinator to assess potential for injury or illness from hazardous material spill; and
4. Provide medical assessment and treatment of illness/injuries not requiring hospitalization or emergency room care.

F. United States Coast Guard

Under the National Contingency Plan, the United States Coast Guard (USCG) has the primary responsibility for hazardous material spills within coastal zones. In Washington State, the USCG is responsible for the state's coastal marine and Puget Sound waters. USCG Captains of the Port are federally pre-designated On Scene Coordinator for coastal and inland waterways within their jurisdictions. As such, they are responsible for investigating the circumstances, directing containment, clean-up and removal of spills. The USCG also administers the Oil Spill Liability Trust Fund and can call out the Pacific Strike Force.

Federal law requires that the spiller assume complete responsibility for response and clean-up actions.

Specific responsibilities for the USCG District 13 include:

1. Co-chairing the Region 10 Regional Response Team;

2. Providing pre-designated Federal On Scene Coordinator (FOSC) for the coastal zone and Puget Sound area if a federal response is required;

3. Providing trained personnel to oversee the containment of the spill and clean-up of the environment;

4. Coordinating response activities with state, federal, local agencies, and the responsible parties;

5. Maintaining continuously staffed facilities which can be used for command, control and surveillance of oil discharges and hazardous substance releases occurring in the coastal zone and Puget Sound area;

6. Advising the Regional Response Team of the need to initiate further federal response actions;

7. Furnishing documentation required by the federal fund administrator to support federal efforts to recover costs from the responsible party; and

8. Overseeing salvage and recovery operations.

G. National Oceanic and Atmospheric Administration

The NOAA Hazardous Materials Response Branch (HAZMAT) provides scientific assistance to the U.S. Coast Guard's Federal On-Scene Coordinator (FOSC) during oil spills or releases of other hazardous materials. NOAA/HAZMAT'S Scientific Support Coordinator (SSC) is one of the ""special forces"" provided for under the National Contingency Plan. The SSC provides assistance to the FOSC in making operational decisions.

SSC Responsibilities:

1. Over-flight maps depicting the location of the spill material;

2. Trajectory information of spilled material;
3. Description of natural resources at risk;
4. Identification of environmentally sensitive areas;
5. Chemical analysis of the spilled material;
6. Determination of the relative toxicity of the material;
7. Input on dispersant use decisions;
8. Weather forecast information from the National Weather Service;
9. Oceanographic information;
10. Data management;
11. Coordination of on-scene scientific activities; and
12. Provide scientific liaison with state and federal response agencies.

During a response, the SSC is supported by a team of spill response experts in the areas of living marine resources, physical oceanography, meteorology, oil or hazardous materials movement and dispersion, and sensitivity of coastal environments to oil and other pollutants.

The SSC also works with the state and federal natural resource agencies as well local universities and institutes to provide the most accurate and up to date information to the FOSC.

H. Seattle Fire Department Hazardous Materials Team

The Seattle Fire Department shall be responsible for the resolution of all hazardous materials incidents that threaten public safety, except those incidents that are normally resolved by the Seattle Police Explosives Disposal Unit.

The Seattle Fire Department Hazardous Materials Team responsibilities shall include:

1. Initiating measures to save life, protect the environment, and protect personal property;
2. Take only those measures necessary to stabilize the incident (Not responsibility for any type of clean-up associated with said incident); and
3. Responding to Seattle incidents only, this includes jurisdictions or organizations where current Mutual Aid agreements exist with the City of Seattle.

IV. EMERGENCY RESPONSE PROCEDURES

A. General

Successful response to any **Emergency** requires effective immediate actions, prompt notification, and timely commitment of resources for containment and cleanup.

B. Immediate Actions

An individual discovering a petroleum or hazardous substance will take the actions listed below. **Caution must be exercised - the primary concern in all actions taken must be protection of personnel from the hazardous effects of the spill. Fire and Hazardous Material Spills will always be approached from upwind side where possible.**

1. PROTECT self and others from harm;

    a. Evacuate the premises if necessary;

    b. Use appropriate protective clothing;

    c. Extinguish smoking materials away from the spill;

    d. Remove all other sources of potential ignition;

    e. Make area off limits to unauthorized personnel.

2. STOP THE FLOW **(ONLY IF IT CAN BE DONE SAFELY)**

    (a) Close the valve;

    (b) Turn a ruptured or punctured container so that the point of exit is up (guard against eye contact);

    (c) Plug the leak;

    (d) Place leaking container in another drum (over-pack drum).

3. NOTIFY

    (a) Contact Emergency Coordinator

    (b) Contact Fire Department (call #911)

    (c) Contact Facilities

4. CONTAIN THE SPILL

(a) Protect storm drains (cover with mat and surround with absorbent material);

(b) Start containment efforts with appropriate absorbent materials positioned in the path of the flow. Shovel sand, sawdust, sweeping compound, or place sandbags in the path of the flow;

(c) Continue containment efforts until Fire Department and/or appropriate authority arrives and takes command of Spill Site.

C. Emergency Coordinator

1. **IMMEDIATELY**

(a) Identify the character, exact source, amount, and extent of any discharged materials;

(b) Notify all personnel who may be affected.

(c) **EVACUATE AREA IF WARRANTED** -- If full evacuation is warranted sound warning system. Evacuation of the facility will be conducted in accordance with the Marine Operations Center Pacific Action Plan (see Appendix C).

(d) Notify appropriate Federal, State, or local agencies with designated response roles if their help is needed. See "Emergency Response Assistance" for telephone numbers.

2. Assess possible hazards to human health or the environment that may result from the discharge, fire, or explosion.

3. If the Emergency Coordinator determines that the facility has had a discharge, fire, or explosion which would threaten human health outside the facility, the Coordinator will:

(a) Immediately notify the Director of Marine Operations Center-Pacific and the Seattle fire Department that an evacuation of local areas may be advisable;

(b) Immediately notify the United States Coast Guard, Marine Safety Office, Pollution/Emergency # 217-6232

(c) Immediately notify, as required by 40 CFR 265.56 (d), the **National Response Center # 1-800-424-8802**. Information to be reported includes:

- Name and telephone number of reporter,
- Facility name, address and **EPA ID number <u>WA9131499999</u>**,
- Date, time, and type of incident,
- Name and quantity of hazardous material involved,
- Extent of injuries, if any,- Assessment of actual or potential threats to human health or the environment <u>outside the facility</u>.
-

(d) Take all reasonable measures to ensure that fire, explosion, or discharges do not occur, recur or spread to other hazardous wastes at the facility. This may include but is not limited to stopping base operations, collecting and containing released wastes, and removing isolated containers.

(e) Coordinate with appropriate personnel to ensure the immediate treatment, storage, and disposal of recovered waste, contaminated soil and surface water, or any other material that results from a discharge, fire, or explosion at the facility.

(f) Ensure proper cleaning and/or replacement of all emergency equipment and is fit for it's proper use before base operations are resumed. The Emergency Coordinator will notified the Director upon completion of cleanup operations.

(g) Full report with appropriate copies submitted to the EPA Regional Administrator, and Washington state Department of Ecology (Northwest Region), Seattle Fire Department, United States Coast Guard (13th District), Director Marine Operations Center-Pacific and WASC's Regional Safety Manager, WASC, within 15 days after the incident(40 CFR 265.56). Reports shall include but not be limited to:

- Name ,address, and telephone number of the owner/operator/facility;
- Date, time, and type of incident;
- Name and quantity of material(s) involved;
- Extent of injuries, if any;
- An assessment of the actual or potential hazards to human health or the environment;
- An assessment of the scope and magnitude of the problem;
- A description of the immediate actions that were taken and the estimated quantity and disposition of recovered material that resulted from the incident;
- A schedule for implementing changes in this plan or base operations to avoid this type of incident

D. Deputy Director, Marine Operations Center-Pacific

1. Provide necessary guidance and direction as needed, and take appropriate action to protect the safety of all personnel, government property, and the environment

2. Inform the following personnel of the incident and current status:

    (a) Director, Western Administrative Support Center Phone: 206-526-6026

    (b) Director, Office of NOAA Corps Operations Phone: 301-443-2383

2. Notify appropriate local authorities should an evacuation of local areas be advisable; and

3. Coordinate all news releases with the NOAA Office of Public and Constituent Affairs.

    Phone: 202-482-6090

V. EMERGENCY RESPONSE ASSISTANCE

NOTE: **OBTAIN OUTSIDE LINE AT MOP BY PRESSING #9**

ALL EMERGENCIES ---------- # 911

FIRE/AMBULANCE

Seattle Fire Department ---------- # 911

Harborview Emergency ---------- 206-223-3074

POLICE

Seattle Police Department ---------- # 911
Washington State Patrol ---------- # 911

UNITED STATES COAST GUARD

Marine Safety Office, 13th District
Pollution/Emergency Response ---------- 217-6232

SPILL RESPONSE

National Response Center ----------800-424-8802
NOAA Hazardous Materials Response Branch -------206-526-6317

POISON CONTROL CENTERS

National Poison Control Center ---------- 202-625-3333
Agency for Toxic Substances
and Disease Registry ---------- 404-639-0615

MUNICIPAL WASTE DISPOSAL AGENCIES

Seattle-King County Department of Health

Landfill ---------- 206-296-2341
Sewage ---------- 206-689-3000

VI. EMERGENCY EQUIPMENT

The following emergency equipment is available at MOP:

Description	Location	Capability
Telephone (Press 9 for outside line)	All buildings	
Fire Alarm	Large bell in Administration Building and Air Horns	Notify personnel to evacuate
Fire Hoses	All buildings and Piers (every 100')	Control of A fires
Fire Extinguishers	All buildings	Control small A, B, or C fires
NAF S-III AGENT	Hazardous Waste Shed	Control fires in storage sheds
Halon Extinguisher	Flammable Storage Locker and Hazardous Waste Shed	Control fires in storage sheds
Drain Covers	Boiler Shed	Seal storm drains
Spill Kits: Oil/Solvent Pads; 7 bales 17" x 19" 4 rolls 36" x 150' 8 bales 36' x 36"	Between Maintenance Building and Boiler Shed	Absorb and restrict flow of material
Mercury Spill Kit	Facilities Shop	Cleanup spill Mercury
Spill X	Various locations: Boiler Shed, Warehouse, and Flammable Storage Shed.	Acids, Caustics and Solvents. Absorb and restrict flow of spilled material
Oil Boom 1,200 feet and 800 extra feet	Piers	Contain entire base shore to shore
Emergency Shower	Electronics Shop	Personnel Decontamination
Emergency Eyewashes	Machine Shop Battery Locker Boiler Shed Electronics Shop	Personnel Decontamination

VII. COORDINATION AGREEMENTS

The contents of this Emergency/Contingency Plan have been provided to the following agencies:

United States Coast Guard
Marine Safety Office, 13th District

National Oceanic and Atmospheric Administration
Hazardous Materials Response and Assessment Division
Seattle, WA.

Seattle Fire Department
Hazardous Response Team

Washington State Department of Ecology

Harbor View Medical Center
Seattle, WA.

Coordination agreements to this Plan are attached. The Plan will be submitted to the above organizations for their review every three years, or sooner in accordance with Chapter 173-303-350 WAC.

APPENDIX A: LEGAL DESCRIPTION

All of block 59, Lake Union shore lands, and that certain harbor area adjacent to lots 9 & 10 of said block 59 described as follows: Beginning at the intersection of the northwest corner of said block 10 and the inner harbor line, thence,
N 89? 59' 33.1" W 200 ft. to the outer harbor line, thence
S 0? 02' 27" W along the outer harbor line 314.67 ft. to the northerly line of waterway number 9, thence N 0? 02' 27" E along the inner harbor line 482.44 ft. to the point of beginning. Except that portion of said block 59 described as follows: Beginning at the southeast corner of said block 59 and running thence N 49? 59' 13.3" W 88.482 ft., N 0? 02' 26.9" E 200 ft.,
S 49? 59' 13.8" E 88.482 ft., thence S 0? 02' 26.9" W 200 ft. to the point of beginning; and beginning at the intersection of the northwest corner of said lot 10 and the inner harbor line and running S 89? 59' 33.1" E 81.712 ft. to the point of beginning, thence S 49? 59' 13.8" E 20 ft., S 40? 00' 46.2" W 90 ft.
N 49? 59' 13.8" W 127.24 ft. S 89? 59' 33.1" E 140 ft. to the point of beginning.

APPENDIX B: PUBLIC AFFAIRS

Marine Operations Center-Pacific considers any emergency or spill to be important. The public perception of hazardous spills magnifies this. The Director, Marine Operations Center-Pacific or his/her designee will approve all press releases. Release of information should adhere to the following guidelines:

- Information will be given in a timely and positive manner that assures accuracy and reflects consideration of the public welfare, NOAA, and Marine Operations Center-Pacific.

- Information will be given to ensure public safety, prevent or reduce widespread alarm, and ensure public understanding of the extent and nature of public hazard resulting from the spill.

In the event of a spill or emergency situation that affects or has the potential to affect public safety the Director, Marine Operations Center-Pacific will contact NOAA Office of Public and Constituent Affairs.

Phone: 202-482-6090

APPENDIX C: EMERGENCY ACTIONS

DECISION TO EVACUATE

In the event of a fire, spill, or natural disaster should occur the Director, Marine Operations Center-Pacific or his/her designee will make the decision to evacuate. If there is imminent danger the EMERGENCY WARNING system should be used.

FIRST AID

If any first aid or medical attention is required the Marine Operations Center-Pacific Health Services officer will be notified. If there is a life threatening or serious illness then **#911** should be called immediately.

EMERGENCY WARNING SYSTEM

Large bell in Administration Building and airhorns in hallways will be used, to alert personnel, in the event of an emergency.

The fire alarm system will be used in the Electronics and Warehouse Building to alert personnel, in the event of an emergency.

BASE INFORMATION

Folders containing base information will be placed near primary exits to assist local fire and police departments. These folder include the following:

- Site Plan;
- Employee Roster;
- Floor Plans which include information on locations of flammable solvents, gas cylinders, chemical storage areas, and any other data that may assist local authorities;
- Emergency Procedures.

EVACUATION PROCEDURE

In the event that evacuation of Marine Operations Center-Pacific becomes necessary the Deputy Director, MOP or his/her designee will notify department chiefs, Commanding Officers, and base security to begin directing there personnel away from the event and towards nearest exit. If possible, windows and doors should be shut and electrical equipment shut off. Personnel must assemble outside in front of the base for personnel muster and further instructions.

RETURN TO WORK

Employees may re-enter the base only when given permission by the Deputy Director, Marine Operations Center-Pacific or his designee.

OTHER BUILDINGS

The Emergency Coordinator upon direction of Deputy Director, Marine Operations Center-Pacific, will notify occupants of nearby buildings.

VISITORS

Visitors to Marine Operations Center-Pacific are the responsibility of the person receiving them. All visitors will **IMMEDIATELY EVACUATE DURING ANY** situation or possible situation at Marine Operations Center-Pacific.

REPORTING OF SIGNIFICANT ACCIDENTS

All significant accidents will be reported promptly to the Regional Safety and Health Manager at:

U.S. Department of Commerce
Western Regional Support Center
7600 Sandpiont Way NE
Seattle, WA. 98115-0070

Phone: 206-526-6049

APPENDIX D

Instructions for Spill Kits used at Marine Operations Center-Pacific

Reprint

BEST'S SAFETY DIRECTORY 1991 31st EDITION

USING KITS FOR SPILL CLEANUP

DOUGLAS EASLY
Product Manager
New PIG Corporation
Tipton, PA

Regulations concerning the handling of spill cleanup have been in effect for several years, but a question still remains among many first responders: What is the most efficient means of cleaning up spills? Each facility has its specific needs, but one tool, a spill kit, can assist every company in the goal of effective spill cleanup.

Recently, a major U.S. manufacturer had several drums of hydraulic fluid punctured and damaged by a forklift, spewing gallons of liquid onto a warehouse floor. Maintenance crew personnel grabbed every absorbent on hand—socks, pillows and mats—and scrambled to find enough pairs of gloves, goggles and temporary disposal bags to handle the job. As a result, virtually all of the company's stock of maintenance absorbents was exhausted, necessitating an emergency order of absorbents from a supplier, *and* forcing the company to pay high shipping costs to cover overnight delivery.

Fortunately, in this instance, the company had enough absorbents on hand to clean up the spill with minimal damage to the surrounding area. Had the company kept a spill kit in its warehouse, it could have contained and absorbed the spill quickly and easily, without depleting its stock of absorbents, *and* saved the added expense of a rush replacement order.

As this example illustrates, spill kits could have enabled the company to be properly equipped to respond to this emergency spill and saved it money in the process. Spill kits, either purchased from absorbents or safety equipment manufacturers, or assembled in-house, offer many benefits.

Kits give first responders to a spill immediate availability of absorbent products and cleanup equipment in one place.

Benefits of Spill Kits

Kits give first responders to a spill immediate availability of absorbent products and cleanup equipment in

one place. There's no need to search for absorbent socks in one storage area and gloves in another. Kits, and properly trained employees, create a state of spill readiness and preparedness in your plant, and may qualify your company for reduced insurance premiums. Kits, by design, are mobile so that they can be taken to the site of a spill quickly. Kits are also highly visible and well-identified, enabling employees to know where to turn when a spill occurs.

These advantages are key factors in minimizing injury and damage from a spill. The more quickly a responder can get to a spill with proper cleanup materials, the more likely a spill with environmental impact can be avoided or minimized.

Getting Started

Analyzing your kit needs is the first step in preparing for emergency spills. First, inventory all fluids on site. Start by categorizing each fluid as either aggressive (corrosive and always hazardous, such as hydrofluoric acid); non-aggressive/non-hazardous (non-corrosive, such as water-based coolants); or non-aggressive/hazardous (non-corrosive but hazardous, such as gasoline.) Some absorbent products are color coded pink for aggressive fluids and blue for non-aggressive fluids. It may be helpful to color code your inventory sheets accordingly. Then, calculate the quantity of each fluid at each location, and note any special characteristics for each, for example, caustic, flammable, etc. See Figure 1 for a sample inventory form.

After having completed your inventory, identify any high-risk or other areas prone to spills. These may include loading docks, dispensing areas, battery storage areas, tank rooms, solvent recovery stations, drum storage areas, laboratories, dip tanks, chemical storage rooms, etc. Once all spill-prone sites are identified, calculate the maximum quantity of fluid of a potential spill for each location. Be certain to classify each quantity according to its aggressive and hazardous properties. This information is essential because absorbents are grouped into those capable of absorbing aggressive and those capable of absorbing non-aggressive fluids.

NON-AGGRESSIVE & NON-HAZARDOUS FLUIDS INVENTORY

Location: _____

Name of Fluid: _____

☐ **Petroleum-based** ☐ **Water-based**

Remarks: _____

_____

_____

_____

_____

Date	**Quantity & Number of Containers**

Color Code:
Pink Sheet for Aggressive Fluids
Blue Sheet for Non-Aggressive Fluids

Figure 1

CHECKLIST FOR ANALYZING SPILL KIT NEEDS

1. Inventory fluids on site by location, aggressive and hazardous properties, fluid name and quantity.
2. Identify any other areas prone to spills and other high risk spill areas.
3. Determine the maximum quantity of fluid of a potential spill for each location and the aggressive and hazardous properties of such a spill.
4. List the type and quantity of cleanup accessories needed for each location and potential spill.
5. Consider any special circumstances in spill-prone areas that may require specialized cleanup materials or procedures.
6. Determine the types and locations of the spill kits needed, and calculate the quantity of kits needed at each location.

Figure 2

In addition to knowing the potential size of a spill at each location, check the Material Safety Data Sheet (MSDS) for each fluid, or some other source, to determine what cleanup accessories will be needed at each site. These may include gloves, goggles, respirators, protective clothing, temporary disposal bags, etc. Also, take into consideration any special circumstances in spill-prone areas. For example, is there a drain or grate nearby? If so, consider a specialized drain cover to prevent water or environmental contamination. Other factors to consider are the accessibility of the area and its exposure to the elements. A special-sized kit, or one that can withstand the elements, may be needed.

Finally, with all this information in hand, calculate the types and quantities of kits needed for each location. You can consult absorbents and safety equipment manufacturers for assistance, but there are a few

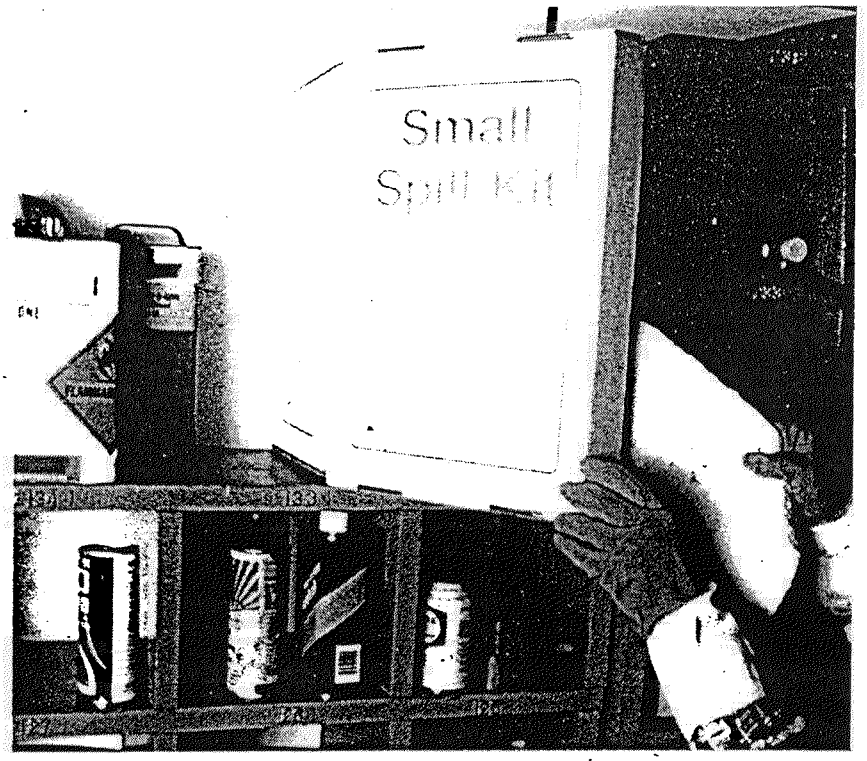
guidelines that may make your job easier.

Determining Kit Quantity and Location

To determine the quantity of kits needed, consider three key criteria:

- the amount of absorbents needed;
- the physical characteristics of the location;
- the amount of manpower typically available.

For example, at a loading dock, a large, open-access area where large spills are possible, a large spill box filled with the appropriate absorbents and equipment may be the best tool. Most such spill boxes can be quickly and easily moved manually on their wheels or by forklift to the spill site. However, in an office building, where small quantities of fluids are more likely to spill in confined spaces, a small spill kit, capable of absorbing five gallons of fluid or less and easily carried by one person to the spill site, may handle the job well.



A small spill kit is well-suited for spill cleanup of less than five gallons.

Often one centrally-located spill kit may serve several areas or, if access is limited, a few small kits may be needed. Sometimes it is best to use both large and small spill kits, using the smaller kits for immediate first response and the larger ones for final cleanup.

When determining the location of your spill kits, take into account three factors:

- proximity to spill-prone areas;
- visibility;
- protection.

Locate your kits in, or as close to as possible, spill-prone areas. Loading docks, chemical storage areas and laboratories are obvious choices. In addition, make certain that you position your kits in highly visible areas, and label and identify them well. If kits are hidden from view, they may be forgotten when a spill occurs. Finally, select a site where your kits will be protected. If your kits are located inside a building, keep them in areas where materials or equipment will not interfere with your access to them. If your kits are outside, make sure that they are housed in appropriate protective containers and that they are guarded from damage from moving vehicles, the elements, and possible vandalism.

Locate spill kits in spill-prone, highly visible areas.

Kit Containers and Contents

After you have determined the quantities and locations of your spill kits, you can make a list of the types of kit containers needed and the types and quantities of absorbents and cleanup equipment to be included in each kit. There are four different types of containers commonly available: cardboard, cloth, metal, and plastic.

Cardboard containers are

lightweight and low cost, but are not very durable, especially if the kit will be handled frequently or will be exposed to the elements. Cardboard kits cannot be used for temporary disposal of spent absorbents because they may leak. A cardboard container is ideal, however, for a kit that will be used infrequently and not be exposed to the bumps and bangs of everyday use.

A fabric container also is lightweight and low cost, and often is more durable than a cardboard container. Like a cardboard container, a fabric kit cannot be used for temporary disposal of spent absorbents. But, unlike a cardboard container, a fabric one is flexible and can be shaped to fit into spaces where other kits are too large, such as behind a seat in a motor vehicle. Typically, fabric kits are about half the size of a duffle bag.

Metal containers are sturdier than both cardboard and fabric, but often they also are more expensive. They are heavier and more difficult to handle than cardboard or fabric, and can produce sparks (and possibly cause a fire or explosion if used near flammable spills. In addition, metal containers can rust if exposed to moisture. The sturdiness of metal containers, however, and their ability to serve as temporary disposal containers, makes them a popular choice for kits. Some companies even recycle their own clean, dry 55-gallon open head drums into spill kits, which are especially suitable if these kits are kept away from moisture.

The most versatile material for a spill kit is plastic. Many kits available from absorbents manufacturers are made of polyethylene, a lightweight, yet durable plastic that is easy to move if equipped with a handle or wheels or forklift entry. In addition, many polyethylene containers are approved by the United States Department of Transportation (U.S. DOT) for temporary storage of spent absorbents and waste transit. Polyethylene containers are also weather- and chemical-resistant, non-corroding, non-rusting, and non-sparking. This makes them ideal for virtually any kit location and spill situation, indoors or out. In addition, plastic containers can be manufactured in highly visible colors for easy identification by spill responders.

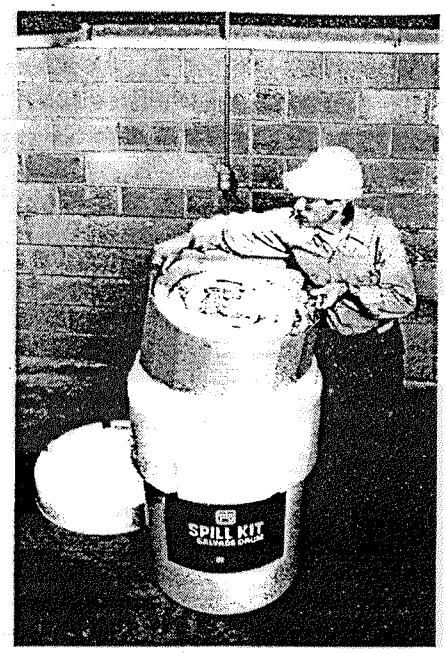
After you determine which types of kit containers are best suited for your locations, make a list of the absorbents and cleanup equipment needed for each kit. Plan on using absorbent socks to create a dike to absorb and contain a spill, and absorbent pillows, pulp, or mats for absorbing the spill "puddle" or sheen. Also, include on your list all the equipment needed to clean up the spill: gloves, goggles, respirators,

A spill kit in a fabric container can be shaped to fit into the confined space of a truck cab.

A clean, dry 55-gallon open head drum can be recycled into an emergency spill kit container.

protective clothing, repair materials (for punctured drums), disposal bags and ties (for spent absorbents), drain covers, MSDS sheets, telephone numbers of key company and community personnel, etc.

Finally, contact absorbents or safety equipment manufacturers to determine what spill kits are available to meet your needs. Many absorbents manufacturers offer standard kits to handle a wide variety of spill situations. A few manufacturers will even make kits customized for your applications. As an alternative, you can assemble your own spill kit. If you do, be sure to consult the manufacturers of the fluids that will be absorbed to make certain that the materials that you are putting into your spill kit will meet your needs.



With proper design and packaging, even large spill kits can be handled easily by one person.

Contingency Planning and Spill Kits

Regardless of the types of fluids at your facility, a contingency plan is essential to their safe handling in the event of a spill. And spill kits are good tools to use as the center of your contingency planning procedures and training. A kit's location, identification, and contents can assist you in constructing your contingency plan

Spill kits can be packed with a complete set of materials for cleanup of specific spills, including absorbents and personal protection equipment.

SPECIAL CONSIDERATIONS: MOTOR CARRIERS & HAZARDOUS MATERIALS

Two areas demand special attention when planning for spill kits: motor carriers and hazardous materials. Most spills involving motor carriers occur at terminals and docks, but some do happen during transit caused by accidents, punctures, tears and ruptures to tanks from wear, road vibration, and debris striking a vehicle. Typically, while in transit, a motor carrier has fewer cleanup resources available. To address this situation, federal regulations were enacted recently requiring motor carriers to be equipped to contain and absorb a small spill without personal harm. In addition, many facilities require their transporters to have spill response materials on their vehicles. A spill kit is the ideal tool to meet such requirements.

Some manufacturers offer small, portable kits specifically designed to handle small spills on motor vehicles such as trucks, tankers and forklifts. Often such kits are contained in fabric, allowing for flexibility when placing the kit behind or under a seat in the vehicle. In addition, many companies lend spill kits to drivers entering their grounds as a preventative measure, and then take the kits back when the vehicle leaves the property. Regardless of the specific situation, it is prudent to plan for a spill from any vehicle, and to train the personnel in the vehicle how to respond to such a spill.

Special considerations also must be taken when dealing with spills of hazardous materials. For motor carriers, federal regulations require that, at minimum, you must carry documentation including manifests, MSDS sheets and U.S. DOT-approved emergency response guidebooks when transporting any hazardous material. For others responding to spills of hazardous materials, strict federal, state, and local regulations apply for their handling. See Figures 2 and 3 for a checklist concerning spills of hazardous materials, and a mini-directory of federal agencies that can provide more information in this area. Or consult your absorbents manufacturer for details about cleaning up spills of hazardous materials.

and in teaching your employees its details.

First, note the location of each spill kit on-site in your contingency plan. Then, make placement of your kits the starting point for informing employees of their existence and use. Identify both the kits and locations for all employees to see. Use highly visible signs on, near, and around the kits. Place maps marked with kit locations near telephones and other high traffic areas. Color code (pink for aggressive materials' spills; blue for non-aggressive) and mark your spill kits with their location for ease of use and ease of return to their proper locations. Also, mark each location and kit with the name and telephone number of key personnel to contact in the event of a spill.

A spill kit is a beneficial tool only if your employees are thoroughly trained in its use. To get the most from your spill kit dollar, train all employees in the basics of spill cleanup, and designate a core group as first responders. In this way, you promote quick, efficient reaction to a spill and knowledgeable personnel to handle the bulk of the cleanup.

Training employees in non-hazardous spill cleanup can take many forms, but one of the most simple and effective ways is "hands on" training several times a year. First, set up mock spills and demonstrate the proper procedures for using a spill kit for cleanup. Then, unannounced, stage similar spills and allow employees to use the cleanup materials and skills taught. Add classroom instruction, too, to give employees a solid understanding about the characteristics and potential hazards of fluids handled and the cleanup materials and equipment to be used. Many manufacturers offer employee training in spill cleanup, as well as supplementary materials for training programs, such as instruction booklets, videotapes, etc.

MINI-DIRECTORY OF FEDERAL AGENCIES OFFERING ASSISTANCE IN CONTINGENCY PLANNING

CALL	FOR INFORMATION ABOUT
Occupational Safety & Health Administration (OSHA) 202-523-7741	any spill occurring in the workplace, and regulations for spill cleanup and training.
National Response Center 1-800-424-8802 (in Washington, DC area: 202-426-2675 or 202-267-2575)	your regional and local response centers and hazardous materials teams, and procedures for spill cleanup and evacuation.
Environmental Protection Agency	
Office of Solid Waste & Emergency Response (OSWER) 202-475-8600	SARA Title III and community "right to know" regulations.
Chemical Emergency Preparedness & Prevention Office (CEPP) 1-800-535-0202 (in Washington, DC area: 202-479-2449)	prevention of chemical spills and regional and local assistance in performing chemical safety audits.
Office of Emergency & Remedial Response (OERR) 202-475-8720	responding to chemical spills and Superfund site waste removal.
Federal Emergency Management Association (FEMA)	
Technical Hazards Division 202-646-2861	identification of an unknown substance.
National Emergency Training Center 301-447-6771	training for spill cleanup.
U.S. Department of Health & Human Services—Agency for Toxic Substances & Disease Registry 404-639-0730	the effects of an inhaled, ingested or spilled substance on humans.
U.S. Coast Guard—Marine Environmental Response Division 202-267-0518	a spill in or near a body of water.
U.S. Department of Transportation Office of Hazardous Materials 202-366-4000	a spill on a road or highway.
U.S. Department of Commerce NOAA Superfund Program Coordinator 301-377-3563	Superfund sites
U.S. Department of Justice Environmental Enforcement Section 202-633-3646	reporting spill or cleanup negligence.

Cleanup

Cleaning up spills with a kit is identical to standard spill cleanup procedures—only more convenient. First, immediately report the spill to your supervisor or other emergency or trained personnel and get the appropriate kit(s) to the site of the spill as soon as possible. Then, evacuate non-essential persons and extinguish any source of spark or flame in the area. Next, identify the spilled substance by checking the OSHA Hazardous Substance Survey Form or the Material Safety Data Sheet (MSDS) on file in your facility. Or, check the container label, but do so without getting too close to the spill or to the container. Remember, act as quickly as possible after the spill is detected, but don't take chances with your personal safety. After identifying the substance, consult its MSDS.

Before beginning to contain and absorb the spill, determine what pro-

tective clothing and equipment you will need. A warning label on the substance container or the MSDS will list what protection is necessary. If no warning label is present, protect your entire body, including wearing a respirator or breathing apparatus, a face shield or goggles, special chemical-resistant clothing, gloves, aprons, and boots, etc.

Your spill kit should contain the appropriate personal protection equipment, but never assume! Always consult the fluid's MSDS or warning label. Be aware, too, that whatever caused the spill may create other hazards, so if you do not have the appropriate protective equipment, stay away from the spill.

The first step in actually cleaning up the spill is to minimize the spill itself by immediately eliminating its source—for example, uprighting an overturned container, shutting off a leaky valve, plugging a punctured drum. Your spill kit may contain products to assist you in this. Then, keep the spilled substance from spreading. To do this, contain the spill by damming, diking, or blocking the flow of the substance by using an absorbent sock from your kit. Critically important is the containment of the spill from drains in the area, especially if the drains lead to a water supply. After the spill is contained, immediately begin to apply additional absorbents from your kit.

Mats, pillows, and loose absorbent pulp work best to absorb contained spills. The large surface area and materials in these products quickly draw the spilled substance into the mat, pillow, or pulp through a wicking action and hold it there. Absorbent products are usually categorized by their ability to absorb water- and/or oil-based substances, as well as to handle aggressive materials. Regardless of their use, these lightweight products are easily applied to the spill by one person, yet one three-inch diameter by 46-inch long absorbent sock will absorb and hold 100 ounces of fluids. When fully saturated, absorbent products should be disposed of appropriately—either incinerated or placed in a landfill, according to local, state, and federal regulations. Remember, though, that absorbent socks, mats, pillows, and pulp do not render fluids less aggressive or hazardous. If a pillow has absorbed hydrofluoric acid, the solution in the sock will be just as corrosive as it was before it was absorbed.

After the spilled substance has been contained and absorbed, all disposable materials must be packaged and labeled in accordance with proper waste disposal procedures. Take special care in following the strict local, state, and federal regulations for the disposal of hazardous waste materials. Be certain that all disposable materials, including spent absorbent materials, rags, tools, and clothing, are properly handled.

As a final step, survey the area of the spill and its surroundings to determine if all traces of the spill, and of possible other hazards caused by the spill, have been removed. Then, replenish any materials used from the kit, and replace the kit in its original location. Refilling a spill kit is the same as reordering any safety material used in your facility: kit materials are not spare parts, but essential safety tools. Many companies keep extra stock of spill kit absorbents and equipment, just as they do for maintenance absorbents.

Finally, evaluate the effectiveness of your contingency plan, training, employee response, and materials. Correct any weakness in the procedures and materials, and conduct retraining and practice spills periodically. There are many sources for information on using kits for spill cleanup. Your local fire and police departments are good starting points. See Figure 4 for other agencies and offices that provide assistance.

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY REGIONAL RESPONSE TEAM OFFICES

After your local fire department, the Environmental Protection Agency's Regional Response Team (RRT) is a good source of information for contingency planning. Contact the RRT in your area for assistance in developing a step-by-step procedure for spill cleanup at your site, as well as for the names and telephone numbers of key people in your area who can help you in the event of a spill. Your local RRT also will review your contingency plan to make sure that it meets all government requirements and addresses your community's needs.

Anchorage, Alaska	907-271-5083
Atlanta, Georgia	404-347-3931
Boston, Massachusetts	617-860-4300
Chicago, Illinois	312-353-2318
Dallas, Texas	214-655-6444
Denver, Colorado	303-293-1723
Kansas City, Kansas	913-236-3888
New York, New York & **the Caribbean**	201-548-8730
Philadelphia, Pennsylvania	215-597-9800
San Francisco, California & **the Pacific Basin**	415-974-7511
Seattle, Washington	206-442-1196

Figure 4